

$\frac{1}{\sqrt{2}} \begin{pmatrix} 1 & i \\ 0 & 1 \end{pmatrix}$ ,  $\frac{1}{\sqrt{2}} \begin{pmatrix} 1 & -i \\ 0 & 1 \end{pmatrix}$ ,  $\frac{1}{\sqrt{2}} \begin{pmatrix} 1 & 0 \\ i & 1 \end{pmatrix}$ ,  $\frac{1}{\sqrt{2}} \begin{pmatrix} 1 & 0 \\ -i & 1 \end{pmatrix}$ ,  $\frac{1}{\sqrt{2}} \begin{pmatrix} 1 & 1 \\ 0 & 1 \end{pmatrix}$ ,  $\frac{1}{\sqrt{2}} \begin{pmatrix} 1 & -1 \\ 0 & 1 \end{pmatrix}$ ,  $\frac{1}{\sqrt{2}} \begin{pmatrix} 1 & i \\ i & 1 \end{pmatrix}$ ,  $\frac{1}{\sqrt{2}} \begin{pmatrix} 1 & -i \\ -i & 1 \end{pmatrix}$ ,  $\frac{1}{\sqrt{2}} \begin{pmatrix} 1 & 1 \\ i & 1 \end{pmatrix}$ ,  $\frac{1}{\sqrt{2}} \begin{pmatrix} 1 & -1 \\ -i & 1 \end{pmatrix}$ ,  $\frac{1}{\sqrt{2}} \begin{pmatrix} 1 & i \\ 0 & 1 \end{pmatrix}$ ,  $\frac{1}{\sqrt{2}} \begin{pmatrix} 1 & -i \\ 0 & 1 \end{pmatrix}$ ,  $\frac{1}{\sqrt{2}} \begin{pmatrix} 1 & 0 \\ i & 1 \end{pmatrix}$ ,  $\frac{1}{\sqrt{2}} \begin{pmatrix} 1 & 0 \\ -i & 1 \end{pmatrix}$ ,  $\frac{1}{\sqrt{2}} \begin{pmatrix} 1 & 1 \\ 0 & 1 \end{pmatrix}$ ,  $\frac{1}{\sqrt{2}} \begin{pmatrix} 1 & -1 \\ 0 & 1 \end{pmatrix}$ ,  $\frac{1}{\sqrt{2}} \begin{pmatrix} 1 & i \\ i & 1 \end{pmatrix}$ ,  $\frac{1}{\sqrt{2}} \begin{pmatrix} 1 & -i \\ -i & 1 \end{pmatrix}$ ,  $\frac{1}{\sqrt{2}} \begin{pmatrix} 1 & 1 \\ i & 1 \end{pmatrix}$ ,  $\frac{1}{\sqrt{2}} \begin{pmatrix} 1 & -1 \\ -i & 1 \end{pmatrix}$ .

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